

In recent decades a number of programs and policies have been implemented at various levels of government to address the lack of non-motorized transportation options. The following is a review of federal, state, and local policies that address the needs for bicycle, pedestrian, greenways, and trails facilities. While this review is meant to be comprehensive, it should be acknowledged that this body of legislation is constantly in evolution.

2.1 FEDERAL-LEVEL:

The United States Department of Transportation (USDOT) is responsible for federal transportation programs and funding, and works with the Federal Highway Administration (FHWA) and state Departments of Transportation for implementation.

- **Intermodal Surface Transportation Efficiency Act (ISTEA)** – Passed in 1991, this major legislation set new priorities for transportation systems nationwide. Key elements in ISTEA that address bicycle and pedestrian facilities include:
 - A 10% funding set aside of the Surface Transportation Program for roadway enhancements, including facilities for bicycling and walking.
 - Creating a number of funding programs to pay for bicycle and pedestrian facilities.
 - States and Metropolitan Planning Organizations (MPO) must prepare long range transportation plans (LRPs) that include plans for bicyclists and pedestrians.
 - States must appoint a bicycle and pedestrian coordinator.

ISTEA was further supported in 1994 with the publication of the USDOT's national Bicycling and Walking Study, which communicated two specific goals: to double the percentage of trips made by bicycle or foot while also reducing the number of bicyclist and pedestrian crashes by ten (10) percent.

- **Transportation Equity Act for the 21st Century (TEA-21)** – In 1998, TEA-21 was signed into law and strengthened ISTEA's directives for the provision of bicycle and pedestrian facilities. Specifically, bicycle and pedestrian facilities are to "be considered, where appropriate, with all new construction and reconstruction of transportation facilities." (www.walkinginfo.org)

In 1999 FHWA created a Guidance Memorandum to address the TEA-21 provisions regarding bicyclists and pedestrians, and re-enforce the importance of non-motorized transportation as an important part of good planning practice.

- **Americans with Disabilities Act (ADA)** – Currently, ADA does not address accessibility in regards to sidewalks or trails, but the United States Access Board is in the process of developing guidelines.

2.2 STATE-LEVEL:

- **2000 Statewide Comprehensive Outdoor Recreation Plan (SCORP)** – The 2000 SCORP is a general policy document that addresses the future outdoor recreation needs of Florida's population. This document is especially valuable in the creation of off-road trails and greenways.



Activity	Resource/Facility	Population Served (per mile)		
		Minimum	Maximum	Median
Bicycle Riding	Linear mile of trail	1,500	10,000	5,000
Hiking	Linear mile of trail	5,000	10,000	6,750
Horseback Riding	Linear mile of trail	5,000	10,000	5,000
Nature Study	Linear mile of Trail	6,250	10,000	6,750

A feature of the SCORP is the establishment of population guidelines for Resource-Based Outdoor Recreation Trails. The chart above illustrates those that are pertinent to the creation of a bicycle, pedestrian, greenways, and trails system:

The Treasure Coast Region—defined by SCORP as Indian River, St. Lucie, Martin, and Palm Beach Counties—was evaluated based on its outdoor recreation resources and participation levels to determine current and future needs of the region’s population. The report notes that many opportunities exist in the region for fishing, boating, swimming, saltwater beach activities, camping, hiking, and nature study. The following chart shows SCORP’s estimated demand and need for recreation resources and facilities for the Treasure Coast Region:

Treasure Coast Outdoor Recreation Resources: Estimated Demand and Need:

Recreational Activity	Year 2010	
	Demand (User Occasions)	Resource Needs (miles)
Bicycle Riding	14,417,186	1,043.01
Hiking	1,754,904	435.52
Horseback Riding	753,933	0.00
Nature Study	1,058,861	0.00

- Florida Department of Transportation: “Greenbook”**

The Florida DOT produces the *Manual of Minimum Standards for Design, Construction and Maintenance for Streets and Highways*, known colloquially as the “Greenbook.” Chapters 8 and 9 address pedestrians and bicyclists, respectively.

Pedestrian Facilities

For pedestrians, the Greenbook emphasizes the minimization of conflict between pedestrians and vehicles. This is ideally accomplished through creating independent systems for pedestrian travel. If this is not practical, other *horizontal separation* should be considered. For urban highways with substantial pedestrian-vehicle conflict, the following help to reduce the number of collisions:

- Eliminate left and or/right turns;
- Prohibit free flow right turn movements;
- Prohibit right turn on red;
- Convert from two-way to one-way street operation;
- Provide separate signal phases for pedestrians;
- Eliminate selected crosswalks;
- Provide pedestrian grade separations.”

Longitudinal barriers, such as guardrails, rigid barriers, and bridge railing should be considered to redirect vehicles away from roadside conflicts. When adequate horizontal separation is not



feasible, a longitudinal barrier can be utilized. Fencing or landscaping is not considered an adequate barrier, but can be used in conjunction with other redirection elements.

For severe pedestrian-vehicular conflict, such as areas surrounding high pedestrian volumes and/or pedestrian generators, *vertical separation* (e.g.: overpasses, underpasses) should be considered. This method may be pertinent to schools, large shopping centers, recreation/entertainment facilities, transit centers, commercial centers, and large parking facilities.

Care should be taken in the protection of pedestrians at crossings. Minimally:

- “Curb ramps meeting the requirements of ADA Accessibility Guidelines and the Florida Accessibility Code for Building Construction, shall be constructed at crosswalks at all intersections where curbs and sidewalks are constructed in order to give persons with disabilities safe access.”
- Crossing should be placed at locations with ample sight distances.
- At crossing, the roadway should be free from changes in alignment or cross section.
- The entire length of crosswalk shall be visible to drivers at a sufficient distance to allow a stopping maneuver.
- Stop bars shall be provided adjacent to all signalized crosswalks to inform drivers of the proper location to stop. The stop bar should be well separated from the crosswalk, but should not be closer than 4 feet.
- All crosswalks shall be easily identified and clearly delineated, in accordance with Manual on Uniform Traffic Control Devices.” (Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways. 8-6)

Stopping sight distances for the driver are important to pedestrian safety. FDOT recommends a clear view of the pedestrian approach for at least 15 feet from the outside travel lane. Illumination of crossings should also be considered. If a pathway is adjacent to a street or highway, however, it should not be illuminated to a level more than two times of that of the roadway.

Bicycle Facilities

Chapter 9 of the Greenbook states that “all projects, particularly intersection modifications, should be designed to accommodate bicyclists.” (9-1) For on-street facilities, care must be taken in roadway construction as to accommodate 1 ¼ inch tires, and also to ensure that there are safe drainage grates, railroad crossings, smooth pavements, and signals responsive to bicycles.

Specifically, FDOT recommends that,

- Urban arterials and collectors should consider 4-foot lanes or marked bike lanes
- Rural arterials and collector within one mile of an urbanized area should consider construction of 4- or 5-foot shoulders.

Additional guidelines for bikeways include:

- Paved shoulders should be 4-feet to safely accommodate bicycle travel, and 5 feet is recommended from the face of any sort of longitudinal barrier.
- Two-way bike lanes on one side of the road are not recommended.
- On one-way streets, bike lanes should be constructed on the right side of the street.
- “In restricted urban conditions, where it is not possible to include bike lanes or paved shoulders or on lower volume collector streets, an outside lane wider than 12 feet can help accommodate both bicycles and motor vehicles in the same lane.” (9-3)



In terms of multi-use paths, the most relevant guidelines include:

- Shared use paths should be separate from roadways.
- The minimum recommended width is 10 feet; 12 feet is preferable.
- A minimum 2 foot wide grade with a maximum slope of 1:6 should be maintained adjacent to both sides of a shared use path; 3 feet is desirable.
- Vertical clearance should be a minimum of 8 feet.
- A design speed of 20mph should be assumed for shared use paths.

- **Florida Department of Environmental Protection (FDEP): Greenways and Trails Office** - The State of Florida defines a greenway as a “linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridge-line, or over land along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route; any natural or landscaped course for pedestrian or bicycle passage; an open space connector linking parks, natural reserves, cultural features, or historic sites with each other and population areas; or a local strip or linear park designated as a parkway or greenbelt.” (SCORP) Among other initiatives, the State’s Greenways and Trails Office is in charge of the development and implementation of the Statewide Greenways and Trails Five-Year Implementation plan. The plan, titled “Connecting Florida’s Communities with Greenways and Trails” provides state-level recommendations but also denotes a series of benchmarks, many of which are useful at a County-wide level. These recommendations are to:

- “Maintain or restore natural, recreational, cultural and historic resources on greenways and trails to the extent necessary for the area to continue to be suitable for designation.”
- “Establish a greenways and trails system that is so extensive that all [residents] can reach a greenway or trail which has public access by traveling 15 minutes from their home or workplace.”
- “For those greenways and trails with public access, ensure that 95 percent of visitors are satisfied with the quality of their experience.”

The Plan also identifies areas of opportunity for a number of trail types. Those that show routes through St. Lucie County include:

Multi-Use Trail Opportunities:

The FDEP plan shows two routes through St. Lucie: a north-south trail that hugs the coast of the Atlantic Ocean, and an east-west trail that connects to Okeechobee County. The City of Fort Pierce is shown as a trailhead.

Paddling Trail Opportunities:

The FDEP Plan shows a continuation of the Atlantic Trail paddling route along the coast of St. Lucie County.

Conservation/Ecological Opportunities:

FDEP’s Plan shows an existing greenway system that enters St. Lucie County from the northwest. According to the map, much of this land is already in public ownership, but the land shown in blue would complete St. Lucie’s piece of the greenway if it were acquired. This land was designated a Class 2 Priority in 2002’s Identification of Critical Linkages Within the Florida Ecological Greenways Network, because of its “importance for maintaining a statewide, connected reserve network from south Florida through the Panhandle.” (DEP, *Identification....*, p. 4)



In 1999, the Florida Legislature created the Florida Greenways and Trails Council (FGTC) to advise the Department of Environmental Protection on land acquisition, designation, and other trail-related issues.

- **Rural Lands Stewardship**

In 2001, Florida enacted the Rural Lands Area Stewardship, which provided counties with a way designate areas to be predominantly agricultural, rural, open, open-rural, or of an equivalent land use. It is an incentive-based system that encourages private, voluntary preservation of natural resources and retention of rural and/or agricultural uses but still accommodates economic growth. The ultimate goal is economic diversification in a sustainable rural environment.

St Lucie County has already executed a Rural Lands Overlay Zone as part of its Comprehensive Plan, which encourages the use of a trails system to reduce automobile dependency and increase quality of life.

2.3 COUNTY LEVEL:

- **St Lucie County Comprehensive Plan**

According to the Land Use Element of the County's Comprehensive Plan, the following are the major concerns and issues facing the County:

1. "Preservation, maintenance, and enhancement of the County's natural resources, including:"
 - the Indian River Lagoon
 - the North Fork of the St. Lucie River, including 5 and 10 mile Creeks
 - the Savannas, both North and South
 - the coastal barrier islands system
 - isolated inland wetland systems
 - aquifer recharge areas
 - native upland habitat, including intact habitat in the western county
2. Continued pressures for western development and migration
3. The I-95/Florida Turnpike Corridor as a major force in future development consideration
4. Increased desire of the community to attract high-quality employers
5. Efficiency in traffic circulation associated with providing residential areas near employment hubs; and
6. Efficiency in the provision of all public services."

Other goals, objectives, and policies that are relevant to the planning of St Lucie's Bicycle, Pedestrian, Greenways & Trails system:

GOAL 1.2: Recognize that land use and transportation must be considered concurrently in all planning, and to the extent feasible, modify current land use patterns to decrease dependency on the automobile in order to minimize the need for future roadway expansion and promote the use of alternate modes of transportation.

Objective 1.3.1 Identify areas which have common internal characteristics and require planning as contiguous areas. The Indrio Road corridor, White City, the area surrounding the Orange Blossom Mall, North Hutchinson Island, and South Hutchinson Island are examples.



GOAL 2.3: To develop a safe bicycle and pedestrian transportation system accessible to all major public and private facilities.

Objective 2.3.1 The bicycle and pedestrian transportation system needs for St. Lucie County shall be identified through the development of a long range master plan that shall be updated on a regular basis.

Policy 2.3.1.2 The bicycle and pedestrian transportation plan for St. Lucie County shall include, and address the need for, the integration of both countywide and regional/statewide greenway and trail networks into the overall bicycle and pedestrian plan.

Policy 2.3.1.7 Motorized and non-motorized transportation needs shall be identified and addressed and met for each new development approval.

Policy 2.3.1.8 By January 1, 2002, the County shall consider and implement the necessary land development code amendments to require that all new land development activities include dedicated bicycle and pedestrian facilities on internal arterial and collector roadways. Pedestrian facilities shall be required along all local streets as necessary to support the intensity and density of development.

Objective 2.3.2 The transportation system shall be improved to appropriately accommodate bicycle and pedestrian roadway design and facility requirements.

Policy 2.3.2.1 Include within the Land Development Regulations, design criteria and standards to be used in addressing the needs of bicyclists and pedestrians.

Policy 2.3.2.2 In coordination with the St. Lucie MPO, establish a standing advisory committee that provides input and recommendations on the development of a coordinated bicycle and pedestrian transportation plan. The plan should provide access to major public and private facilities including parks, schools, beach accesses and major shopping facilities.

Policy 2.3.2.3 The County shall maintain an inventory of all significant streets in the MPO area, with particular attention given to hazards, bottlenecks, and barriers to cyclists.

Policy 2.3.2.4 The County shall, by July 2002, develop a bicycle and pedestrian accident recording program to identify road segments and intersections having frequent bicycle and pedestrian-related accidents.

Policy 2.3.2.5 Include within the Land Development regulations a requirement that all new development provide bicycle facilities and/or sidewalks along all major collector and arterial roadways within and adjacent to the proposed development project.

Policy 2.3.2.6 Coordinate bicycle planning activities with other agencies associated with bicycle planning activities in Okeechobee, Martin, and Indian River Counties.

Objective 2.3.3 A bicycle transportation system shall be developed into a network connecting all major travel destinations to population concentrations.



Policy 2.3.3.1 Establish bicycle and pedestrian facilities in accordance with AASHTO guidelines around schools, with emphasis placed upon the area encompassing schools that are not serviced by the school bus system. Prioritization for the development of these facilities will be determined by the Board of County Commissioners and shall be based on the St. Lucie MPO Bicycle and Pedestrian Plan.

Objective 2.3.4 A usable pedestrian circulation system shall be developed.

Policy 2.3.4. Provide, in association with all new road construction in the urban area, sidewalks along all arterials and collectors identified in the Comprehensive Plan. Pedestrian facilities shall be required along all local streets as necessary to support the intensity and density of development.

Policy 2.3.4.2 Provide additional sidewalks, where necessary, to connect or complete either existing or proposed sidewalks in a manner that provides a complete pedestrian circulation system.

GOAL 7.1: BALANCING GROWTH AND COASTAL RESOURCES. All development proposed in the future land use element in the coastal area shall occur in a manner which protects, conserves, and enhances the natural resources of the coastal area and the environmental, social, and economic benefits attributed to them.

Objective 7.1.2 Protecting Wetlands and Wildlife Habitat. The County shall support the protection, conservation, or enhancement of coastal uplands and wetlands. The County shall include within its Land Development Regulations criteria and standards for the protection and enhancement of the remaining native plant communities in the County. There shall be no net loss of existing wetland functions and values which are regulated by federal and state agencies. The land development regulations shall include open space requirements, upland buffers and clustering of units as a means to protect existing wetlands.

Policy 7.1.2.3 The County shall continue to implement and enforce land development regulations which require a minimum fifty (50) foot buffer zone of native upland and transitional vegetation along rivers, creeks, and estuaries, to be maintained from the landward extent of state waters or from mean high water of the rivers, creeks, and estuaries, whichever is greater. However, setbacks for the North Fork of the St. Lucie River shall be governed by those regulations set out in the Land Use Element to the extent that those requirements may be more restrictive.

Policy 7.1.3.12 The County shall coordinate with pertinent state and regional agencies to identify natural area greenways and wildlife corridors to link existing public parks, preserve areas and similar public areas for conservation and habitat preservation purposes through the creation of a system of natural area greenways and wildlife corridors that will protect ecological communities in the coastal area. The greenway system shall also encourage non-motorized transportation through the connection of sidewalks and bike lanes and by locating greenway hubs in close proximity to mass transit stops.

Policy 7.1.5.4 The County shall require provisions for the public access to beaches renourished at the public's expense.



Policy 7.1.5.5 Access to the beach for new development will be confined to elevated walkways that protect dune systems, subject to the Florida Department of Environmental Protection approval.

Policy 7.1.6.7 Historic resources and their environments should be included and protected in public acquisition programs for recreation, open space, and conservation.

Policy 7.2.1.3 The construction of County-funded public facilities in the coastal high hazard area shall be prohibited, unless the facility is necessary for public access, natural resource restoration and enhancement, or to provide for recreational facilities and other appropriate water dependent facilities.

GOAL 7.3: The Amount of Public Access to Oceanic, Estuarine, and Riverine Coastal Resources Shall Be Increased.

GOAL 8.1: The natural resources of St. Lucie County shall be protected, appropriately used, or conserved in a manner which maximizes their functions and values.

Policy 8.1.1.2 St Lucie County shall facilitate development that maximizes energy efficiency and sustainability. This shall include implementing Land Development Code standards that promote the types of land use patterns and development techniques that will reduce the total fossil fuel energy required to build and maintain urban land uses. This shall include standards that promote mixed land use patterns, urban infill, public transit and provide non-motorized interconnections between land use types to reduce auto dependence and vehicle miles traveled.

Policy 8.1.2.9 St Lucie County shall restrict the construction of artificial waterways (canals) which provide access to any of the rivers, streams, creeks, canals, or other waters of the State or their tributary systems for the purposes of navigation, aesthetics, recreation, and or enhancement of property.

Objective 8.1.8 The County shall protect native upland habitats, and shall prevent the net loss of listed species in their habitat. This shall be accomplished through the County Environmentally Significant Lands Acquisition program, ongoing natural resource protection programs and the implementation of land development regulations.

Policy 8.1.8.14 The County shall provide multiple use opportunities on County-owned natural preserve areas, consistent with natural resource protection and conservation, to provide for passive recreation, wildlife habitat, watershed protection, erosion control, maintenance or enhancement of water quality, aquifer recharge protection, or other such functions.

Objective 8.1.12 The biodiversity of the County's natural areas shall be protected and enhanced through public land acquisition, conservation easements, land development regulations, and implementation of Management Plans prepared for public owned and managed natural areas. The County shall enact, enforce, and continually review and update land use regulations and land managements plans that provide for the protection of natural resources.

Objective 8.1.13 The County shall develop a greenway plan to facilitate the implementation of ecological and recreational greenways within its jurisdiction. At a minimum the plan shall



include a map of existing and proposed greenways, identify gaps in the greenway network, and set forth strategies for the maintenance and expansion of the existing network.

Policy 8.1.13.1 The County shall coordinate with state and federal land acquisition programs to encourage connectivity between privately and publicly owned recreational and conservation lands.

Policy 8.1.13.2 The County shall pursue grants from local, state, federal, and private organizations to plan and assemble a greenway network.

Policy 8.1.13.3 The County shall encourage multi-use greenways, as appropriate, to facilitate the development of shared recreation and wildlife corridor ecological greenways.

Policy 8.1.13.4 The County shall establish guidelines within the Land Development Code that facilitate usable open space that is accessible to cyclists and pedestrians. Non-paved bicycle and pedestrian access shall be encouraged between uses where paved access would negatively impact existing habitats.

Policy 8.1.13.5 The County shall develop a beautification and improvement program for areas used by the general public (e.g. roads, sidewalks, bicycle paths, pedestrian walkways, parks and open space areas) to enhance vehicular and non-vehicular movements. The program shall encourage planting standards that promote the use of appropriate native plants in road and utility rights-of-way to restore the original native plant community to the extent practicable.

Policy 8.1.13.6 The County shall utilize, where possible, existing rights-of-way as wildlife corridors and pedestrian areas.

Policy 8.1.13.7 The County shall coordinate with appropriate state and federal agencies to identify natural area greenways and wildlife corridors to link existing public parks, preserve areas and similar areas for conservation and habitat preservation purposes.

Policy 8.1.13.8 The County shall consider incentives that encourage the granting of conservation easements for natural linear greenways and/or scenic drives.

Policy 8.1.13.9 The County shall support the reconnection of impounded wetlands to the Indian River Lagoon to improve the productivity of estuaries; and the implementation of adaptive management strategies for saltwater marshes and mangrove systems which are consistent with Best Management Practices for mosquito control.

Policy 8.1.13.10 The County shall promote the maintenance of native plant communities in a contiguous manner to provide wildlife corridors and pedestrian pathways.

GOAL 9.1: Provide adequate recreation facilities and open space areas that offer a broad range of activities to all citizens and visitors of St. Lucie County.

Policy 9.1.1.4 The areas having the Conservation Public Land Use designation will be used solely for preservation and/or passive recreation. No residential or commercial development will be permitted other than development typically related to park service and security functions.



Objective 9.1.3 St. Lucie County shall provide vehicular and pedestrian access to all public recreation facilities, including barrier-free design features at entrance points to facilities such as buildings used for group assembly, spectator seating areas, and beaches and shores.

Policy 9.1.3.1 Acquire and develop easements or rights-of-way as required to provide adequate access for public recreation facilities. Construct access ways which are compatible with the character and needs of the facility, as well as being harmonious with surrounding development patterns.

Policy 9.1.3.2 Continue to provide public access to Atlantic Ocean beaches, and continue to give careful consideration to providing related parking areas and dune crossover facilities without disturbance to the dune environment, natural habitats, and designated areas of particular concern.

Objective 9.1.5 Develop and implement strategies to encourage eco-tourism in St. Lucie County.

ST. LUCIE COUNTY LAND DEVELOPMENT CODE: BIKEWAYS AND SIDEWALKS

The St. Lucie County Land Development Code has been revised in recent years to reflect a more comprehensive view of transportation, with particular emphasis on the concurrent provision of bikeways and pedestrian facilities for new developments. The Code requires that construction for any arterial or Collector Street or roadway within the Urban Service Area shall be provided with sidewalks and bicycle paths along one or both sides, and references the use of a Bicycle and Pedestrian plan for the County. The Code's recent revisions state that:

Sidewalks must be 6 feet in width on roads classified as collectors or arterials, whereas residential streets must have sidewalks 5 feet in width "as deemed necessary during the County's review process". Developers bear the cost of design and construction of the sidewalks but it is the County's duty to maintain all sidewalks within County rights of way. In some cases, multi-use paths (10-12 feet wide) may be required by the County instead of sidewalks.

The development code for bikeways is similar: all new residential developments that undergo site plan approval and all new non-residential developments must construct bike lanes on all roads designated as collectors or arterials. The dimensions of the bikeways differ with the type of stormwater drainage: roadways with closed drainage (curb and gutter) are required to have four-foot bikes lanes whereas roadways with open drainage (swale) must have a five-foot bike lane. Unlike the regulations for sidewalks, "The construction of a multi-use path adjacent to an arterial or collector roadway internal or external to the development project does **not** relieve or otherwise release the requirement for the provision of bike lanes along said streets or roads." (7.05.04)

It should be noted that there is currently no provision in the Land Development Code that requires concurrent construction of bicycle or pedestrian facilities when existing roadways are being renovated and/or rehabilitated.



LAND DEVELOPMENT CODES SPECIFIC TO BICYCLES, PEDESTRIANS, GREENWAYS, AND TRAILS:

As noted above, the Code's requirements for bicycle and pedestrian facilities are only applied to new development; thus, the major code applicable to the Bicycle, Pedestrian, Greenways & Trails plan is found in 7.05.00 Transportation Systems element of Chapter VII: Development Design and Improvement Standards.

7.05.02 Streets

10. All new construction for any arterial or collector street or roadway with the Urban Service Area shall be provided with sidewalks and bicycle paths along one or both sides, as determined by the County Engineer. The County Engineer shall consult with the Bicycle/Pedestrian Coordinator, the St. Lucie Metropolitan Planning Organization Bicycle and Pedestrian Plan in determined the location of any sidewalks and bicycle facilities.

11. All local or minor collector streets or roads, constructed within the Urban Service Area providing access to residential developments that have a mean lot street frontage of 125 feet or less, or non-residential developments with a mean lot street frontage of 225 feet or less, shall be provided with sidewalks along both sides of the street or road in accordance with the provisions of Chapter 13.

12. Except as otherwise may be provided in this Code, all arterial and major collector street and roadways shall have a minimum travel lane width of 12 feet. In those instances where an open swale drainage system is utilized, five feet of the required shoulder area shall be paved where practical.

7.05.04 Sidewalks and Bikeways**A. Sidewalks**

1. All new residential developments required to obtain site plan approval located within the Urban Service Boundary and all new non-residential development located within the unincorporated area of St Lucie County and within the Urban Service Boundary are required to design and construct sidewalks within the right-of-way of all streets and roadways that abut or lie within the perimeter of the property.
2. New sidewalks must be a minimum of six (6) feet wide along streets classified as collectors and arterials.
3. Local street requirements are based on local needs and existing conditions. Local streets shall have sidewalks five (5) foot wide along one or both sides of the street as deemed necessary during the County's development review process.
4. All new sidewalks must be constructed of concrete, brick pavers or other materials acceptable to St. Lucie County. All construction must conform to Florida Department of Transportation and/or St. Lucie County standards.
 - a. All sidewalks on internal private roads shall connect with the sidewalks in the abutting public right-of-way.
 - b. The County Engineer may authorize a modification in sidewalk width to protect existing trees or to accommodate existing utilities. In no case shall sidewalks be less than four feet.



- c. The Development Review Committee (DRC) as part of the site plan review process shall document any exemption of a development project from constructing specific sidewalk segments based on physical constraints such as proximity to drainage canals or structures where the construction of the particular sidewalk segment would result in a disproportionate burden on the development.
- d. Sidewalks shall be constructed around the perimeter of a cul-de-sac.
- e. All sidewalks and ramps shall conform to the latest requirements published in the most recent edition of the Americans with Disabilities Act (ADA) Accessibility Guidelines.
- f. The developer will bear the cost for design and construction of the sidewalk. Sidewalks on private property must be maintained by the developer, property owner's association or other entity as approved by St. Lucie County through the operation and maintenance covenants of the community, subdivision association or other recognized subdivision association or other recognized management entity. St. Lucie County shall maintain all sidewalks located within County maintained public rights-of-way unless otherwise agreed to through specific maintenance agreements.
- g. Multi-use paths (10-12 feet wide) may be required by the County in place of sidewalks when the multi-use path would be part of the adopted area-wide bicycle/pedestrian system or Greenways & Trails plan.
- h. The Board of County Commissioners shall authorize total or partial relief from the requirements of sidewalk construction if it finds, after receiving the recommendation of the Development Review Committee and based on conditions peculiar to the proposed development, that the proposed sidewalk construction is not in the best interest of the County, the applicant shall pay a fee-in-lieu to the County for sidewalk and/or greenways & trails construction.

B. Bikeways

- 1. All new developments within the unincorporated area of St. Lucie County or within municipalities that access County maintained roads and are constructing or reconstructing roads as part of the development shall be required to design and construct bike lanes. Bike lanes shall be constructed and dedicated to St. Lucie County in accordance with the St. Lucie County Public Works Standards.
- 2. Bike lanes shall be provided on all internal project streets and roads that are classified as arterials or collectors. Bike lanes shall be constructed in accordance with the St. Lucie County Public Works Standards.
- 3. Pavement markings and signage shall comply with the standards established by the Florida Department of Transportation and the Manual on Uniform Traffic Control Devices.
- 4. Roadways constructed with closed drainage (curb and gutter) shall have a four-foot bike lane.
- 5. Roadways constructed with an open drainage (swale) shall have a five-foot bike lane.
- 6. The construction of a multi-use path adjacent to an arterial or collector roadway internal or external to the development project does not relieve or otherwise release the requirement for the provision of bike lanes along said streets or roads.

C. Bicycle Racks

- 1. Bicycle racks shall be required for all non-residential development unless it can be demonstrated that bicycle traffic would not have access to the property per the St. Lucie County Comprehensive Plan 2.2.1.1. Agricultural and Industrial areas shall be exempt from this requirement. Planned Unit Developments (PUD) may be requested to have bike



racks as deemed necessary during the development review process based on the proximity of the development to recreation facilities and school bus stops.

- a. There must be a minimum of six (6) bicycle parking spots
- b. Bicycle parking should be located in close proximity to the buildings entrance.
- c. Bicycle parking facilities shall be located in highly visible well lighted areas to minimize theft and vandalism.
- d. Bicycle parking facilities shall support bicycles in a stable position without damage to wheels, frame or other components.
- e. Additional bicycle parking spots may be necessary and requested during the development review process by the Growth Management Director.
- f. Based on the review of the proposed parking area design, location and security features, the Growth management Director may reduce the number of required automobile parking spaces by one (1) automobile space for each six (6) bicycle spaces.

D. Time of Construction

1. All required sidewalks and bikeways shall be constructed in conjunction with the infrastructure for the phase of the development. The developer shall post a bond or other guarantee acceptable to the County as assurance of completion of the improvements in accordance with Section 11.04.00

E. Maintenance

- a. Sidewalks and bikeways on private property must be maintained by the developer by the developer, property owner's association or other entity as approved by St. Lucie County through the operation and maintenance covenants of the community, subdivision association or other recognized management entity. St. Lucie County shall maintain all sidewalks and bikeways located within County maintained public rights-of-way unless otherwise agreed to through specific maintenance agreements.

OTHER PERTINENT LAND DEVELOPMENT CODES:

3.01.00 Zoning District Use Regulations

D. Transportation and Utility Rights-Of-Way

Transportation and utility rights-of-way and the linear portion of transportation facilities, e.g., pipes, poles, lines, wires, conduits, pavement rails, drainage and other similar equipment and accessories in connection herewith shall be permitted in all zoning districts and shall comply, as applicable, with the resource protection and development standards for vegetation protection, protection of environmentally sensitive lands, protection of habitat for endangered and threatened species, flood damage prevention and stormwater management.

3.01.03 Zoning Districts

AA. HIRD Hutchinson Island Residential District

5. Permitted uses

The following uses shall be permitted as right in environmental zones in the Hutchinson Island Residential District:

- a. Dune Preservation Zone:
 - (2) Elevated walkways



(3) Recreational uses not involving structures other than elevated walkways

c. Wetlands

(2) Elevated walkways

(3) Bridges and bridge approaches

4.02.00 River Park – Community Overlay

4.02.04 Performance Standards

D. *Pedestrian Access:*

1. All site plans and planned developments approved for commercial uses within the River Park Community Overlay Zone shall provide for pedestrian access directly from the streetside sidewalk to all commercial use without crossing the parking areas.

6.02.00 Environmentally Sensitive Lands

6.02.02 Shoreline Protection

C. *Indian River Lagoon Shorelines*

All development along the Indian River Lagoon, including all tributaries except those of the North Fork of the St. Lucie River, shall provide a native vegetation buffer. Compliance with the following criteria:

1. Minimum Buffer Criteria: A native vegetation buffer adjacent to the Indian River Lagoon or other river or creek shall be required. Except for public and private access points, a native vegetation buffer or the existing native conditions shall be maintained for a minimum distance of fifty (50) feet from the mean water high-water line or landward extent of state waters, whichever is greater.

6.04.02 Sea Turtle Protection

I. *Standards for New Beachfront Lighting*

8. Lighting for pedestrian traffic:

- a. Beach access points, dune crossovers, beach walkways, piers or any other structure on or seaward of the primary dune designed for pedestrian traffic shall use the minimum amount of light necessary to ensure safety.
- b. Pedestrian lighting shall be of low intensity and recessed or shielded so that the source of light is not directly visible from the beach.

L. *Standards for New Beach Access Points*

1. Pedestrian Traffic:

Pedestrian traffic shall be directed and limited to beach access points provided with dune crossovers.

7.01.00 Planned Unit Development

7.01.03 Standards and Requirements

E. *Traffic and Pedestrian Circulation*

Any pedestrian circulation system and its related walkways shall be insulated from the vehicular street system. This shall include, when deemed to be necessary by the Board of County Commissioners, pedestrian



underpasses or overpasses in the vicinity of playgrounds and other recreation areas, local shopping areas, and other neighborhood uses which generate a considerable amount of pedestrian traffic.

7.02.00 Planned Non-Residential Development

D. Traffic and Pedestrian Circulation

5. Any pedestrian circulation system and its related walkways shall be insulated from the vehicular street system.

7.03.00 Planned Mixed Unit Development

E. Traffic and Pedestrian Circulation

2. Roadway Design Criteria

o. Any pedestrian circulation system and its related walkways shall be separated from the vehicular street system. This may include, when deemed to be necessary by the Board of County Commissioners, pedestrian underpasses or overpasses in the vicinity of playgrounds and other recreation areas, local shopping areas, and other neighborhood uses which generate a considerable amount of pedestrian traffic.

2.4 RELATIONSHIP TO OTHER PLANS

Regional Plans

St Lucie County is very much affected by its neighbors, particularly to the south. According to the study *Charting the Course: Where is South Florida Heading?* by the Center for Urban and Environmental Solutions at Florida Atlantic University, the South Florida Mega-Region will continue to experience large amounts of growth and subsequent strains on resources. Of all seven counties in the South Florida region, St Lucie County is growing the fastest: between 2000 and 2004, the County's population increased by 17%. Growth is expected to continue, and the Treasure Coast counties—St. Lucie, Martin, and Indian River Martin—are expected to grow by 50% and have a population of 740,000 by the year 2030. The study estimates that St Lucie County will lead the Treasure Coast in the number of new residents, attracting over 113,000 more people in the next twenty-five years.

In response to this expected growth, the Committee for a Sustainable Treasure Coast formed and completed a vision for strategic regional action. Their report identifies seven major issues facing the Treasure Coast: population growth, development pressure and sprawl, agricultural challenges, economic needs, education and health concerns, hurricane vulnerability, and environmental issues. This study examined the Treasure Coast area in five major areas of concern: natural systems, rural lands, built environment, social systems, and the economy. With its cooperative focus and emphasis on sustainability this plan is congruent ideologically with this plan.

The Treasure Coast Regional Planning Council has numerous studies and reports that help to guide decision making in Indian River, St. Lucie, Martin and Palm Beach Counties. The mission of the TCRPC is to encourage and enable local units of government and citizenry to assemble and cooperate with one another and with representatives of major economic interests, to promote health, safety, and general welfare of the citizenry, and to plan for future development of the Region that will keep it competitive and afford a high quality of life.



The South Florida Water Management District is a regional entity that by its nature requires inter-governmental cooperation for the conservation of environmental lands. In its Permit Information Manual, Volume V, the District outlines how linear parks and greenways can be constructed by financially responsible entities in the District's right of way.

St Lucie County / Local Area Plans

A major step towards greater regional cooperation came in the *2030 Regional Long Range Transportation Plan* by Martin and St Lucie Metropolitan Planning Organizations. This joint-effort came about with the results of the 2000 Census, which merged the urbanized areas of Ft. Pierce and Stuart into a single Transportation Management Area known as the St Lucie Urbanized Area. The 2030 plan—known as the “Trend Plan”—outlines priorities for the region, but also promotes the use of scenario-planning and visioning techniques and continued coordination between the two counties.

The Trend Plan identifies four major goals for St Lucie County:

- “Establish an integrated multi-modal transportation system consistent with the future transportation needs of the residents, visitors and businesses of St Lucie County.
- “Provide for the mobility of needs of the citizens of St. Lucie County.
- “To develop a bicycle and pedestrian transportation system to provide access to all major public and private facilities.
- “Provide a transportation system that is safe for users of any mode.”

The cost feasible plan elements detail priorities for roadway improvements, congestion management strategies, transit, and addressing the needs of bicyclists and pedestrians. These priorities should filter in to the Regional Multimodal Network that connects with Martin County.

By law, these long range goals are supported by the St Lucie MPO Transportation Improvement Program (TIP) for FY 2006/07—FY 2010/11. Major construction projects will occur on important arterials such as Walton Road, Lennard Road, and Okeechobee, in addition to improvements on Interstate-95. Very few projects are solely sidewalk construction, and only one multi-purpose path is included.

The existing Land Development Code and the County's Comprehensive Plan have not alleviated the concerns about sprawl in the County—on many counts, it has enabled sprawling development patterns to continue. One remarkable effort to safeguard the community against unwanted development types is the *Towns, Villages, and the Countryside: A New Pattern of Settlement for North St. Lucie County*. This plan, prepared by the Treasure Coast Regional Planning Council with concerned citizens, proposes Comprehensive Plan Amendments that advocate proactive planning for future growth. The design standards emphasizes Traditional Neighborhood Design (TND) and preservation of the rural character of the area by promoting significant amounts of public space, strategies for agriculture to remain viable, and mitigation of environmental impacts of development.

2.5 RELATED TRAIL SYSTEM PLANS

By linking the St. Lucie County Greenways and Trails system of trails and greenways with national, state and regional systems the plan can promote economic development, provide alternative modes of transportation and broaden the recreational opportunities for residents and visitors.

The following trails are mostly conceptual in character and either directly incorporate resources in St. Lucie County or provide opportunities for large-scale linkages.



- Florida Greenways and Trails Program

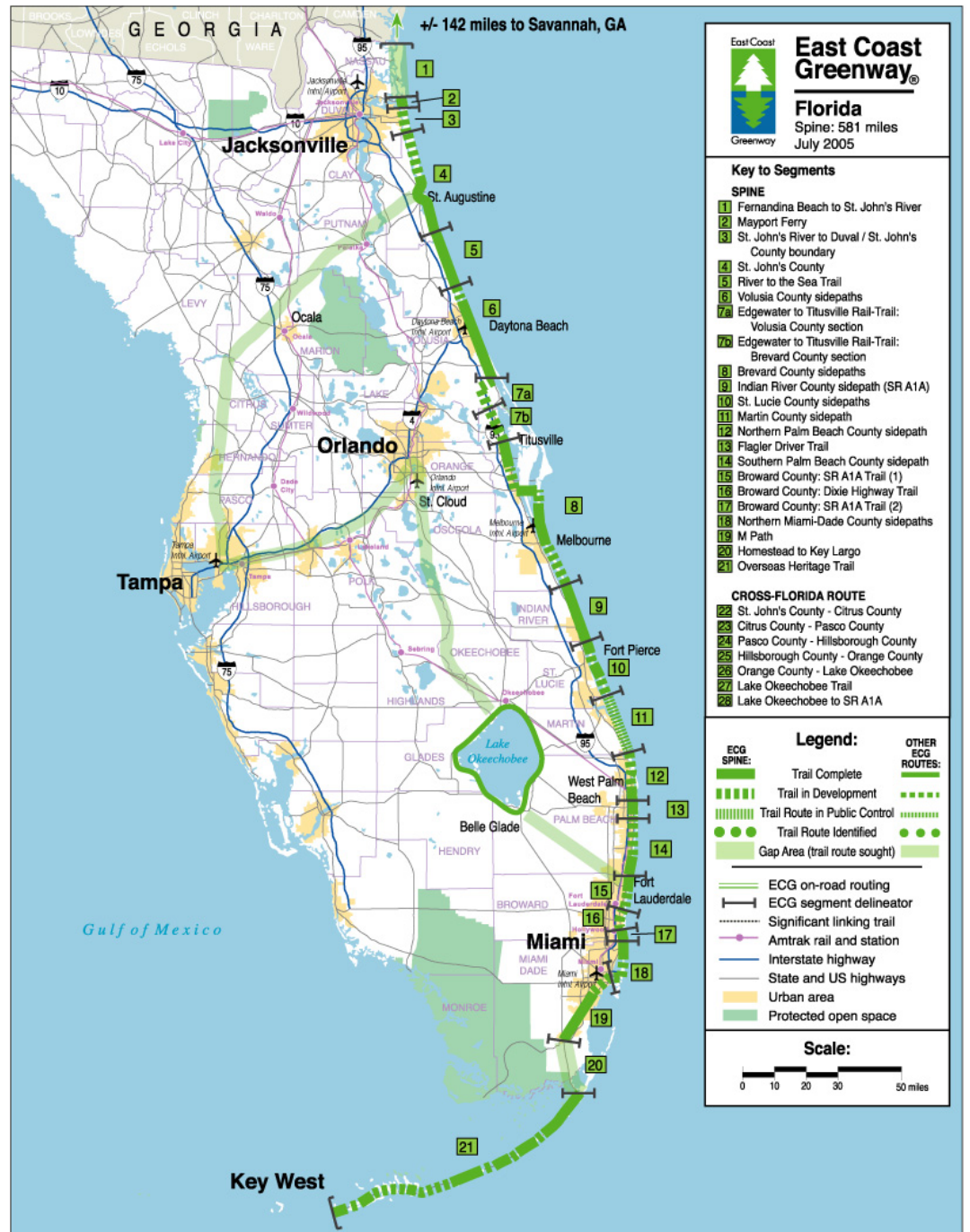
The Office of Greenways & Trails (OGT) is working to establish a statewide system of greenways and trails for recreation, conservation, and alternative transportation. Our efforts are guided by a legislatively adopted plan titled "Connecting Florida's Communities."

The Florida Greenways and Trails System has its roots in the Florida Recreational Trails System, the Florida Canoe Trail System, and the public parks, forests, refuges, wildlife management areas and water management areas created to protect Florida's natural heritage. Created by the Legislature in 1979, the recreational trails system provides people with access to and enjoyment of outdoor recreation areas, and provides an essential framework for the recreational elements of today's greenways and trails system.



• East Coast Greenway

An initiative to connect all major East Coast cities to one another via an off-road path stretching 2,950 miles from Calais, Maine to Key West, Florida. Participant states are in various stages of development for the path. Conceptually, Florida's section of the trail follows the Atlantic shoreline and traverses the north-south span of St. Lucie County. The map below shows that St. Lucie County is part of three Florida segments: 9, 10, and 11, with 10 predominating the County's coast.



- Florida National Scenic Trail** – The National Trails System Act of 1968 (16 United States Code 1241) is the base for the framework of a nationwide system of scenic, recreational, and historical trails. In 1983, an Amendment designated the Florida Trail as the state's first national scenic trail; when completed, this trail will stretch from the Big Cypress National Preserve (Collier County) down to the Gulf Islands National Seashore, for a total of over 1,300 miles. Currently, St. Lucie County is not on the Trail route, but has the potential to create access to the statewide system by connecting the Lake Okeechobee Section.



- Florida Heritage Trails** – A series of thematic trails have been developed by the Florida Division of Historical Resources. The following St. Lucie County resources are included on these state-wide trails:
 - Black Heritage Trail:** Zora Neal Hurston Heritage Trail, Fort Pierce.
 - Cuban Heritage Trail:** Urca de Lima, underwater archeological preserve.
 - Maritime Heritage Trail:** Port of Fort Pierce; Urca de Lima.
 - Cracker Trail:** Fort Pierce to the west coast of Florida.

